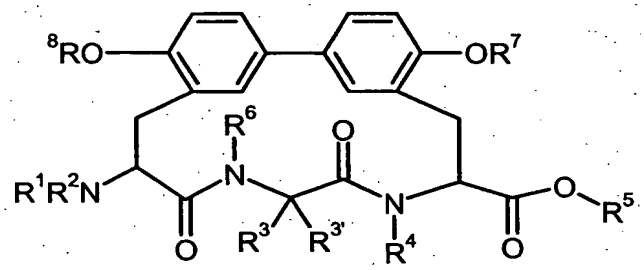
Claims

1. A compound of the formula



(I),

in which

R^1 is hydrogen, alkyl, aryl, heteroaryl, heterocyclyl, alkylcarbonyl, arylcarbonyl, heterocyclylcarbonyl, heteroarylcarbonyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heterocyclylsulfonyl, heteroarylsulfonyl or a carbonyl-linked amino acid residue,

where R^1 apart from hydrogen may be substituted by 0, 1, 2 or 3 substituents R^{1-1}, where the substituents R^{1-1} are selected independently of one another from the group consisting of halogen, alkyl, trifluoromethyl, trifluoromethoxy, nitro, cyano, amino, alkylamino, dialkylamino, cycloalkyl, aryl, heteroaryl, heterocyclyl, hydroxy, alkoxy and carboxyl,

R^2 is hydrogen or alkyl,

where alkyl may be substituted by 0, 1, 2 or 3 substituents R^{2-1}, where the substituents R^{2-1} are selected independently of one another from the group consisting of halogen, amino, alkylamino and dialkylamino,

or

R^1 and R^2 together with the nitrogen atom to which they are bonded form a heterocycle which may be substituted by 0, 1 or 2 substituents R^{1-2}, where the substituents R^{1-2} are selected independently of one another from the group consisting of halogen, trifluoromethyl, amino, alkylamino, dialkylamino, cycloalkyl, aryl, heteroaryl, heterocyclyl, hydroxy, alkoxy, carboxyl, alkoxycarbonyl and aminocarbonyl,

R^3 is hydrogen, alkyl or the side group of an amino acid, in which alkyl may be substituted by 0, 1, 2 or 3 substituents R^{3-1}, where the substituents R^{3-1} are selected independently of one another from the group consisting of trifluoromethyl, nitro, amino, alkylamino, dialkylamino, cycloalkyl, aryl, heteroaryl, heterocyclyl, hydroxy, alkoxy, carboxyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, guanidino and amidino,

in which cycloalkyl, aryl, heteroaryl and heterocyclyl may be substituted by 0, 1 or 2 substituents R^{3-2}, where the substituents R^{3-2} are selected independently of one another from the group consisting of halogen, alkyl, trifluoromethyl and amino,

and in which one or more free amino groups in the side group of the amino acid may be substituted by alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heteroaryl, heterocyclyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, heterocyclylcarbonyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, arylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heterocyclylsulfonyl or heteroarylsulfonyl,

$R^{3'}$ is hydrogen, C_1-C_6-alkyl or C_3-C_8-cycloalkyl,

R^4 is hydrogen, C_1-C_6-alkyl or C_3-C_8-cycloalkyl,

R^5 is alkyl, cycloalkyl, aryl, heteroaryl, heterocyclyl or a hydroxy function-linked amino acid residue, where R^5 may be substituted by 0, 1, 2 or 3 substituents R^{5-1}, where the substituents R^{5-1} are selected independently of one another from the group consisting of halogen, alkyl, trifluoromethyl, trifluoromethoxy, cyano, amino, alkylamino, dialkylamino, cycloalkyl, aryl, heteroaryl, heterocyclyl, hydroxy, alkoxy, carboxyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl and dialkylaminocarbonyl,

in which alkylamino and dialkylamino may be substituted by 0, 1 or 2 substituents R^{5-2}, where the substituents R^{5-2} are selected independently of one another from the group consisting of hydroxy, amino, alkoxy, alkylamino and dialkylamino,

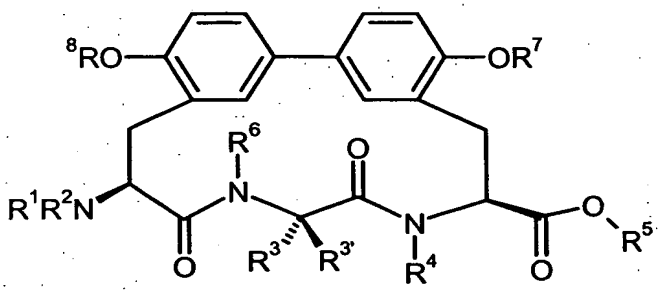
R^6 is hydrogen, C_1-C_6-alkyl or C_3-C_8-cycloalkyl,

R^7 is hydrogen, C_1-C_6-alkyl, alkylcarbonyl or C_3-C_8-cycloalkyl,

R^8 is hydrogen or C_1-C_6-alkyl,

and one of their salts, their solvates and the solvates of their salts.

2. The compound as claimed in claim 1, characterized in that it corresponds to the formula



(I'),

in which R^1 to R^8 have the same meaning as in formula (I).

3. The compound as claimed in claim 1 or 2, characterized in that

R^1 is hydrogen, alkyl or alkylcarbonyl,

R^2 is hydrogen,

R^3 is alkyl or the side group of an amino acid, in which alkyl may be substituted by 0, 1, 2 or 3 substituents R^{3-1}, where the substituents R^{3-1} are selected independently of one another from the group consisting of trifluoromethyl, nitro, amino, alkylamino, dialkylamino, cycloalkyl, aryl, heteroaryl, heterocyclyl, hydroxy, alkoxy, carboxyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, guanidino and amidino,

in which cycloalkyl, aryl, heteroaryl and heterocyclyl may be substituted by 0, 1 or 2 substituents R^{3-2}, where the substituents R^{3-2} are selected independently of one another from the group consisting of halogen, alkyl, trifluoromethyl and amino,

and in which one or more free amino groups in the side group of the amino acid may be substituted by alkyl,

$R^{3'}$ is hydrogen, C_1-C_6-alkyl or C_3-C_8-cycloalkyl,

R^4 is hydrogen, C_1-C_6-alkyl or C_3-C_8-cycloalkyl,

R^5 is alkyl, cycloalkyl, aryl, heteroaryl or heterocyclyl, where R^5 may be substituted by 0, 1, 2 or 3 substituents R^{5-1}, where the substituents R^{5-1} are selected independently of one another from the group consisting of halogen, alkyl, trifluoromethyl, trifluoromethoxy, cyano, amino, alkylamino, dialkylamino, cycloalkyl, aryl, heteroaryl, heterocyclyl, hydroxy, alkoxy, carboxyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl and dialkylaminocarbonyl,

in which alkylamino and dialkylamino may be substituted by 0, 1 or 2 substituents R^{5-2}, where the substituents R^{5-2} are selected independently of one another from the group consisting of hydroxy, amino, alkoxy, alkylamino and dialkylamino,

R^6 is hydrogen,

R^7 is hydrogen, C_1-C_6-alkyl, alkylcarbonyl or C_3-C_8-cycloalkyl,

and

R^8 is hydrogen.

4. The compound as claimed in any of claims 1 to 3, characterized in that

R^1 is hydrogen,

R^2 is hydrogen,

R^3 is aminocarbonylmethyl, 3-aminoprop-1-yl, 2-hydroxy-3-aminoprop-1-yl, 1-hydroxy-3-aminoprop-1-yl, 3-guanidinoprop-1-yl, 2-aminocarbonylethyl, 2-hydroxycarbonylethyl, 4-aminobut-1-yl, hydroxymethyl, 2-hydroxyethyl, 2-aminoethyl, 4-amino-3-hydroxybut-1-yl or (1-piperidin-3-yl)methyl,

$R^{3'}$ is hydrogen,

R^4 is hydrogen, methyl, ethyl, isopropyl or cyclopropyl,

R^5 is alkyl or C_3-C_6-cycloalkyl, where R^5 may be substituted by 0, 1, 2 or 3 substituents R^{5-1}, where the substituents R^{5-1} are selected independently of one another from the group consisting of alkyl, amino, alkylamino, dialkylamino, cycloalkyl, hydroxy, alkoxy, carboxyl, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl and dialkylaminocarbonyl,

in which alkylamino and dialkylamino may be substituted by 0, 1 or 2 substituents R^{5-2}, where the substituents R^{5-2} are selected independently of one another from the group consisting of hydroxy and amino,

R^6 is hydrogen,

R^7 is hydrogen,

and

R^8 is hydrogen.

5. The compound as claimed in any of claims 1 to 4, characterized in that

R^1 is hydrogen,

R^2 is hydrogen,

R^3 is 3-aminoprop-1-yl or 2-hydroxy-3-aminoprop-1-yl,

$R^{3'}$ is hydrogen,

R^4 is hydrogen or methyl,

R^5 is C_1-C_4-alkyl, where alkyl may be substituted by 0, 1 or 2 substituents independently of one another selected from the group consisting of amino, hydroxy and carboxyl,

R^6 is hydrogen,

R^7 is hydrogen,

und

R^8 is hydrogen.

6. The compound as claimed in any of claims 1 to 3, characterized in that

R^1 is hydrogen.

7. The compound as claimed in any of claims 1, 2 and 6, characterized in that R^2 is hydrogen.

8. The compound as claimed in any of claims 1 to 4, 6 and 7, characterized in that R^3 is 3-aminoprop-1-yl or 2-hydroxy-3-aminoprop-1-yl.

9. The compound as claimed in any of claims 1 to 3 or 6 to 8, characterized in that $R^{3'}$ is hydrogen.

10. The compound as claimed in any of claims 1 to 4 or 6 to 9, characterized in that R^4 is hydrogen or methyl.

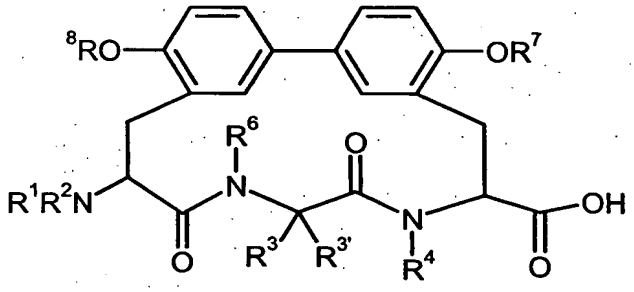
11. The compound as claimed in any of claims 1 to 4 or 6 to 10, characterized in that R^5 is C_1-C_4-alkyl, where alkyl may be substituted by 0, 1 or 2 substituents independently of one another selected from the group consisting of amino, hydroxy and carboxyl.

12. The compound as claimed in any of claims 1, 2, 6 to 11, characterized in that R^6 is hydrogen.

13. The compound as claimed in any of claims 1 to 3 or 6 to 12, characterized in that R^7 is hydrogen.

14. The compound as claimed in any of claims 1, 2, 6 to 13, characterized in that R^8 is hydrogen.

15. A process for preparing a compound of the formula (I) as claimed in claim 1, characterized in that a compound of the formula



(II),

in which

R^1 to R^4 and R^6 to R^8 have the meaning indicated in claim 1,

is reacted with a compound of the formula

$$HO\text{-}R^5 \quad \text{(III)},$$

in which

R^5 has the meaning indicated in claim 1.

16. A compound as claimed in any of claims 1 to 14 for the treatment and/or prophylaxis of diseases.

17. A medicament comprising at least one compound as claimed in any of claims 1 to 14 in combination with at least one pharmaceutically suitable, pharmaceutically acceptable carrier or other excipients.

18. The use of a compound as claimed in any of claims 1 to 14 for producing a medicament for the treatment and/or prophylaxis of bacterial diseases.

19. A medicament as claimed in claim 17 for the treatment and/or prophylaxis of bacterial infections.

20. A method for controlling bacterial infections in humans and animals by administration of an antibacterially effective amount of at least one compound as claimed in any of claims 1 to 14.